

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A transgenic fish whose genome comprises ~~has stably integrated therein~~ an oncogene operably linked to a lymphoid-specific promoter, wherein the oncogene is expressed in lymphoid cells and induces leukemia or lymphoma an ~~oncogenic phenotype.~~
2. (Cancelled)
3. (Withdrawn) The transgenic fish of claim 2, wherein the tissue-specific promoter is selected from the group consisting of *Keratin-8*, *Islet-1*, *PDX-1*, *insulin*, *GFAP*, *MYO-D*, *alpha-actin*, *tyrosine hydroxylase*, *MPO*, and *PU.1* promoters.
4. (Cancelled)
5. (Currently Amended) The transgenic fish of claim 1 [[4]], wherein the lymphoid-specific promoter is a B-cell- or T-cell-specific promoter.
6. (Currently Amended) The transgenic fish of claim 1 [[4]], wherein the lymphoid-specific promoter is selected from the group consisting of *RAG1*, *RAG2*, and *CD2* promoters.
7. (Currently Amended) The transgenic fish of claim 1 [[4]], wherein the lymphoid-specific promoter is a T-cell progenitor-specific promoter.
8. (Currently Amended) The transgenic fish of claim 1 [[4]], wherein the lymphoid-specific promoter is a *RAG2* promoter.
9. (Original) The transgenic fish of claim 1, wherein the oncogene is selected from the group consisting of *MYC*, *CYCLIN D1*, *FOS*, *JUN*, *MYB*, *BCL2*, *HOX11*, *HOX11L2*, *LYL1*, *TAL1/SCL*, *LMO1*, *LMO2*, *MYCN*, *MDM2*, *CDK4*, *GLI1*, *IGF2*, activated *RAS*, activated *EGFR*, mutated *FLT3-ITD*, mutated and activated versions of *TP53*, *PAX3*, *PAX7*, *BCR/ABL*, *HER2/NEU*, *FLT3R*, *NPM-ALK*, *SRC*, *RAS*, *ABL*, *TAN1*, *PTC*, *B-RAF*, *PML-RAR*, and *E2A-PBX1*.
10. (Original) The transgenic fish of claim 9, wherein the oncogene is a mammalian homologue of the oncogene.
11. (Original) The transgenic fish of claim 1, wherein the oncogene is a T-cell oncogene.

12. (Original) The transgenic fish of claim 11, wherein the T-cell oncogene is a member of a gene family selected from the group consisting of the *MYC*, *TAL1/SCL*, *TAL2*, *LYL1*, *LMO1*, *LMO2*, *HOX11*, *HOX11L2*, *TAN1*, and *LYL1* gene families.
13. (Original) The transgenic fish of claim 12, wherein the oncogene is a mammalian homologue of the T-cell oncogene.
14. (Original) The transgenic fish of claim 1, wherein the oncogene is a B-cell oncogene.
15. (Original) The transgenic fish of claim 14, wherein the B-cell oncogene is a member of a gene family selected from the group consisting of the *MYC*, *E2A-PBX1*, *E2A-HLF*, *TEL-AML1*, *BCL6*, *BCL3*, *LYT10*, *MLL*, *HOX*, and *PAX5* gene families.
16. (Original) The transgenic fish of claim 15, wherein the oncogene is a mammalian homologue of the B-cell oncogene.
17. (Original) The transgenic fish of claim 1, wherein the oncogene is *cMYC* or *BCL2*.
18. (Cancelled)
19. (Original) The transgenic fish of claim 1, wherein the oncogene is fused to a reporter gene.
20. (Original) The transgenic fish of claim 19, wherein the reporter gene is selected from the group consisting of luciferase, β -galactosidase, chloramphenicol, acytransferase, β -glucuronidase, and alkaline phosphatase.
21. (Original) The transgenic fish of claim 19, wherein the reporter gene is a fluorescent protein gene.
22. (Original) The transgenic fish of claim 21, wherein the fluorescent protein gene is selected from the group consisting of *GFP*, *RFP*, *BFP*, *YFP*, and *dsRED2*.
23. (Original) The transgenic fish of claim 22, wherein the fluorescent protein gene is *GFP*.
24. (Currently Amended) A transgenic fish whose genome comprises ~~has stably integrated therein~~ a *cMYC* oncogene operably linked to a *RAG2* promoter, wherein the *cMYC* oncogene is fused to a green fluorescent protein gene, and wherein the oncogene is expressed in lymphoid cells and induces leukemia or lymphoma ~~an oncogenic phenotype~~.
- 25-30. (Cancelled)

31. (Currently Amended) The transgenic fish of claim 1, ~~wherein the oncogene induces oncogene-mediated cancer progression, and~~ wherein the leukemia or lymphoma cancer is selected from the group consisting of non-Hodgkin's lymphoma, ~~high-grade astrocytoma, rhabdomyosarcoma, neuroblastoma, neuroendocrine carcinoma, pancreatic carcinoma, ovarian carcinoma, testicular carcinoma, stomach cancer, colon cancer, renal cancer, melanoma,~~ acute myeloid leukemia, chronic myeloid leukemia, and *cMYC*-induced T-cell acute lymphoblastic leukemia.

32. (Original) The transgenic fish of claim 1, wherein the oncogene is fused to *ER*.

33. (Original) The transgenic fish of claim 32, wherein the *ER* is tamoxifen-sensitive *ER* (*ERTm*).

34. (Original) The transgenic fish of claim 1, wherein the transgenic fish is a transgenic zebrafish.

35. (Currently Amended) A transgenic zebrafish whose genome ~~comprises~~ has stably integrated therein a mouse *cMYC* oncogene operably linked to a zebrafish *RAG2* promoter, wherein the oncogene is expressed in lymphoid cells and induces leukemia or lymphoma ~~an oncogenic phenotype~~.

36. (Currently Amended) A method of screening test drugs or agents that suppress ~~modulate~~ oncogene-~~induced~~ mediated leukemia or lymphoma ~~neoplastic or hyperplastic transformation~~, comprising:

contacting or otherwise exposing a transgenic fish to a test drug or agent, wherein the transgenic fish has a genome that ~~comprises~~ has stably integrated therein an oncogene operably linked to a lymphoid-specific promoter and wherein the oncogene induces ~~an oncogene-mediated neoplastic or hyperplastic transformation~~ leukemia or lymphoma;

comparing the leukemia or lymphoma in said transgenic fish after contact or exposure to said test drug or agent relative to the leukemia or lymphoma of said fish prior to contact or exposure with said test drug or agent;

wherein suppression of the leukemia or lymphoma in said transgenic fish after contact or exposure to said test drug or agent relative to the leukemia or lymphoma of said fish prior to contact or exposure with said test drug or agent is indicative of a ~~determining if the test drug or agent~~ that suppresses ~~modulates~~ oncogene-induced ~~mediated~~ leukemia or lymphoma, ~~neoplastic or hyperplastic transformation, comprising:~~

~~classifying the test drug or agent as a drug or agent that modulates oncogene-mediated neoplastic or hyperplastic transformation if the test drug or agent modulates oncogene-mediated neoplastic or hyperplastic transformation.~~

37. (Cancelled)

38. (Withdrawn) The method of claim 37, wherein the tissue-specific promoter is selected from the group consisting of *Keratin-8*, *Islet-1*, *PDX-1*, *insulin*, *GFAP*, *MYO-D*, *alpha-actin*, *tyrosine hydroxylase*, *MPO*, and *PU.1* promoters.
39. (Cancelled)
40. (Currently Amended) The method of claim ~~36~~ 39, wherein the lymphoid-specific promoter is a B-cell- or T-cell-specific promoter.
41. (Currently Amended) The method of claim ~~36~~ 39, wherein the lymphoid-specific promoter is selected from the group consisting of *RAG1*, *RAG2*, and *CD2* promoters.
42. (Currently Amended) The method of claim ~~36~~ 39, wherein the lymphoid-specific promoter is a T-cell progenitor-specific promoter.
43. (Currently Amended) The method of claim 36, wherein the lymphoid-specific promoter is a *RAG2* promoter.
44. (Original) The method of claim 36, wherein the oncogene is selected from the group consisting of *MYC*, *CYCLIN D1*, *FOS*, *JUN*, *MYB*, *BCL2*, *HOX11*, *HOX11L2*, *LYL1*, *TAL1/SCL*, *LMO1*, *LMO2*, *MYCN*, *MDM2*, *CDK4*, *GLI1*, *IGF2*, activated *RAS*, activated *EGFR*, mutated *FLT3-ITD*, mutated and activated versions of *TP53*, *PAX3*, *PAX7*, *BCR/ABL*, *HER2/NEU*, *FLT3R*, *NPM-ALK*, *SRC*, *RAS*, *ABL*, *TAN1*, *PTC*, *B-RAF*, *PML-RAR*, and *E2A-PBX1*.
45. (Original) The method of claim 44, wherein the oncogene is a mammalian homologue of the oncogene.
46. (Original) The method of claim 36, wherein the oncogene is a T-cell oncogene.
47. (Original) The method of claim 46, wherein the T-cell oncogene is a member of a gene family selected from the group consisting of the *MYC*, *TAL1/SCL*, *TAL2*, *LYL1*, *LMO1*, *LMO2*, *HOX11*, *HOX11L2*, *TAN1*, and *LYL1* gene families.
48. (Original) The method of claim 47, wherein the oncogene is a mammalian homologue of the T-cell oncogene.
49. (Original) The method of claim 36, wherein the oncogene is a B-cell oncogene.
50. (Original) The method of claim 49, wherein the B-cell oncogene is a member of a gene family selected from the group consisting of the *MYC*, *E2A-PBX1*, *E2A-HLF*, *TEL-AML1*, *BCL6*, *BCL3*, *LYT10*, *MLL*, *HOX*, and *PAX5* gene families.

51. (Original) The method of claim 50, wherein the oncogene is a mammalian homologue of the B-cell oncogene.
52. (Original) The method of claim 36, wherein the oncogene is *cMYC* or *BCL2*.
53. (Cancelled)
54. (Original) The method of claim 36, wherein the oncogene is fused to a reporter gene.
55. (Original) The method of claim 54, wherein the reporter gene is selected from the group consisting of luciferase, β -galactosidase, chloramphenicol, acytransferase, β -glucuronidase, and alkaline phosphatase.
56. (Original) The method of claim 55, wherein the reporter gene is a fluorescent protein gene.
57. (Original) The method of claim 56, wherein the fluorescent protein gene is selected from the group consisting of *GFP*, *RFP*, *BFP*, *YFP*, and *dsRED2*.
58. (Original) The method of claim 57, wherein the fluorescent protein gene is *GFP*.
59. (Currently Amended) The method of claim 36, wherein the oncogene is *cMYC* and the lymphoid-specific promoter is *RAG2*, and wherein the *cMYC* oncogene is fused to a green fluorescent protein gene.
- 60-66. (Cancelled)
67. (Currently Amended) The method of claim 36, wherein the ~~oncogene induces~~ oncogene-induced mediated cancer progression, and leukemia or lymphoma cancer is selected from the group consisting of non-Hodgkin's lymphoma, ~~high-grade astrocytoma, rhabdomyosarcoma, neuroblastoma, neuroendocrine carcinoma, pancreatic carcinoma, ovarian carcinoma, testicular carcinoma, stomach cancer, colon cancer, renal cancer, melanoma,~~ acute myeloid leukemia, chronic myeloid leukemia, and *cMYC*-induced T-cell acute lymphoblastic leukemia.
68. (Currently Amended) The method of claim 36, ~~further comprising~~ wherein the comparison step comprises measuring the rate of onset of tumor formation resulting from ~~oncogene-induced mediated leukemia or lymphoma neoplastic or hyperplastic transformation.~~
69. (Currently Amended) The method of claim 36, ~~further comprising~~ wherein the comparison step comprises measuring the amount or size of tumors resulting from ~~oncogene-induced mediated leukemia or lymphoma neoplastic or hyperplastic transformation.~~

70. (Original) The method of claim 36, wherein the test drug or agent is antisense DNA, antisense RNA, or small interfering RNA.

71. (Original) The method of claim 36, wherein the transgenic fish is a transgenic fish embryo.

72. (Original) The method of claim 36, wherein the transgenic fish is a transgenic zebrafish.

73. (Original) The method of claim 71, wherein the transgenic fish embryo is a transgenic zebrafish embryo.

74. (Currently Amended) A method of screening test drugs or agents that suppress ~~modulate oncogene-mediated~~ oncogene-induced leukemia or lymphoma ~~neoplastic or hyperplastic transformation~~, comprising:

contacting or otherwise exposing a transgenic zebrafish to a test drug or agent, wherein the transgenic zebrafish has a genome that comprises ~~has stably integrated therein~~ a mouse *cMYC* oncogene operably linked to a zebrafish *RAG2* promoter, and wherein the oncogene induces ~~an oncogene-mediated neoplastic or hyperplastic transformation~~ leukemia or lymphoma;

comparing the leukemia or lymphoma in said transgenic fish after contact or exposure to said test drug or agent relative to the leukemia or lymphoma of said fish prior to contact or exposure with said test drug or agent;

wherein suppression of the leukemia or lymphoma in said transgenic fish after contact or exposure to said test drug or agent relative to the leukemia or lymphoma of said fish prior to contact or exposure with said test drug or agent is indicative of a ~~determining if the test drug or agent~~ that suppresses ~~modulates~~ oncogene-induced ~~mediated~~ leukemia or lymphoma. ~~neoplastic or hyperplastic transformation, comprising:~~

~~classifying the test drug or agent as a drug or agent that modulates oncogene-mediated neoplastic or hyperplastic transformation if the test drug or agent modulates oncogene-mediated neoplastic or hyperplastic transformation.~~